CHAPTER 76. CONDUCT PARTS 91/121/135 PROVING/VALIDATION TESTS

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Maintenance: 3318

B. Avionics: 5318

2. OBJECTIVE. This chapter provides guidance for conducting proving tests, as required by Title 14 of the Code of Federal Regulations (14 CFR) part 91, subpart K and § 91.1041; part 121, § 121.163; and part 135, § 135.145. This chapter also provides guidance for evaluating an operator/applicant's or fractional program manager's (hereafter referred to as the program manager) compliance through the use of validation tests per § 91.1041, part 121, subparts E and F, or § 135.145.

3. GENERAL.

A. Definitions.

(1) Proving Flights. A qualified operations inspector is an inspector who, in order of preference, is:

(a) Aircraft type-rated and current, or

(b) Aircraft type-rated and not current, or

(c) An aviation safety inspector (ASI) (Operations), type-rated in an aircraft within the same group (group I or II) being used in the proving flight and in possession of a "Best Qualified" letter of authorization (LOA).

(2) Proving Tests. Tests conducted by an operator/program manager/applicant to demonstrate the ability to operate according to proposed procedures and regulatory requirements for original certification or introduction of equipment new to the operator/program manager.

(3) Provisionally-Certificated Aircraft. Aircraft in the process of receiving a type certificate or an amendment to an existing type certificate.

(4) Validation Flights. A qualified Operations inspector is an inspector who, in order of preference, is:

(a) Aircraft type-rated and current; or

(b) Aircraft type-rated and not current; or

(c) Aircraft group qualified, or

(d) An ASI in possession of a "Best Qualified" LOA.

(5) Validation Tests. Tests conducted by an operator/program manager/applicant to demonstrate the ability to operate according to procedures and regulatory requirements for specific operational authorizations.

NOTE: For validation testing (with the exception of Federal Aviation Administration (FAA) navigation specialists conducting a navigation validation test), the qualified Operations inspector must be familiar with the testing being conducted. For extended twin engine operations (ETOPS) validation flights, the qualified Operations inspector should be type-rated (not necessarily current) in the specific aircraft, or type-rated in another ETOPS-approved aircraft, and be thoroughly familiar with the ETOPS requirements.

B. Test Differences. Proving and validation tests differ with respect to regulatory source and application. Both tests provide a method for evaluating an operator/program manager's demonstrated operational ability. Both the testing methods and the results of the tests must be acceptable to the Administrator.

C. FAA Inspection Team Requirements. The Flight Standards District Office (FSDO) manager shall organize the inspection team and assign a principal inspector (PI) as team leader.

(1) The team leader will be responsible for the conduct, coordination, and evaluation of the test plan. In addition, the team leader will be the spokesperson for the Administrator on all matters pertaining to the test.

(2) The inspection team should have the following personnel, as required:

- An Operations ASI qualified on the equipment
- Maintenance and Avionics ASIs trained on the equipment and experienced in either part 91, subpart K, 121, or 135 operations, as applicable

(3) All members should be familiar with the pertinent parts of the operator/program manager's manual and program.

(4) For all in-flight scenarios conducted during proving flights, a qualified Operations inspector must be present in the aircraft. For flights involving repositioning of inspectors for proving or validation "ground" scenarios (i.e., flights that do not include in-flight scenarios), a qualified Operations inspector does not need to be onboard the aircraft, provided the flightcrew is type-rated, current, and has completed all training requirements, as applicable for the type of operation. Such flights are considered incidental to the proving/validation tests and considered advantageous to both the FAA and operator.

(5) If a qualified Operations inspector is not available within the certificate management office (CMO) or FSDO, the office manager will request assistance in locating a qualified Operations inspector from the Regional Flight Standards Division (RFSD). The RFSD will first try to locate a qualified operations inspector within its region, and, if necessary, look outside its region. The Flight Activity and Crew Tracking System (FACTS) database can be a useful tool in locating such inspectors. The RFSD may also request the assistance of the Flight Standards Inspector Resource Program (FSIRP) office in obtaining a qualified Operations inspector. If the FSIRP office determines that the FAA does not have any qualified Operations inspectors who are type-rated and current or type-rated and non-current, then the FSIRP may issue a "Best Qualified" LOA for an Operations inspector, current on a similar type aircraft within the same group, and valid for a period of time sufficient to complete the operator's proving test.

NOTE: All LOAs must be initiated by the RFSD, approved by the FSIRP office, and electronically forwarded to the inspector through the Air Carrier Operations Branch, AFS-220. This can be accomplished by electronically carbon copying AFS-220 when sending the LOA to the inspector.

(6) For unique situations in which an operator must conduct proving flights in an aircraft with only one jump seat and no passenger seats (e.g., cargo-configured aircraft), the qualified Operations inspector must conduct all in-flight scenarios. The principal operations inspector (POI) should thoroughly review the operator's proving test plan to determine that all FAA disciplines have the opportunity to conduct sufficient testing. Other forms of testing can be accomplished by table-top demonstrations as well as pre-flight and post-flight scenarios. Any other unique proving flight situations may require a waiver and such requests should be forwarded to the RFSD for concurrence and further forwarded to the Air Transportation Division, AFS-200, for approval.

(7) All FAA participants conducting the proving test must review the carrier's operation, operations manual, and the proving test plan to report deficiencies in any of these areas. It is desirable to have the POI included as part of the in-flight proving test team; but on space-limited flights where the POI is not the qualified Operations inspector, the qualified Operations inspector should have seating priority in order to facilitate the in-flight scenarios.

(8) Once the qualified Operations inspector has completed the in-flight scenarios associated with proving flights, the Avionics and Maintenance inspectors should have an opportunity to observe normal flight deck operations from the flight deck jump seat. When an Avionics or Maintenance inspector is occupying a flight deck jump seat, no in-flight scenarios will be conducted. The additional inspector observations should be planned so additional flight segments are not required of the operator.

4. PROVING TESTS. Proving tests are conducted to ensure that an operator/program manager's organization and maintenance program can support a proposed operation effectively and safely. The

operator/program manager/applicant must demonstrate the ability to conduct line operation functions with a specific aircraft in compliance with regulations and safe operating practices.

A. Part 121 Proving Tests. Part 121 requires aircraft proving tests when the following occurs:

- Initial certification of an applicant
- An operator submits a proposal to add to its operations specifications (OpSpecs) an aircraft type that the operator has not operated previously
- An operator submits a proposal to use materially-altered aircraft

B. Part 91, Subpart K and Part 135 Proving Tests. Part 91, subpart K, and part 135 require aircraft proving tests when the following occurs:

- Initial certification or issuance of management specifications (MSpecs) to an applicant
- An operator/program manager submits a proposal to add to its OpSpecs/MSpecs an aircraft for which two pilots are required by type certificate for operations under visual flight rules (VFR), if the operator/program manager has not previously proved such an aircraft in operations.

C. Proving Test Plan. The operator/program manager/applicant must develop and submit a proving test plan at least 30 days prior to any in-flight demonstration the operator/program manager desires to have credited toward proving test requirements. This includes training or ferry flights. Any deviations to this plan must be coordinated with the certificate-holding district office (CHDO).

D. FAA Planning Stage. During the FAA planning stage, the team leader will assign responsibility for different sections of the proving test report to specific members of the team.

(1) Each team member's responsibility includes project participation until the final report is ready for submission.

(2) Team leader responsibilities include the following:

- Notifying the region of proving test dates, times, and locations. The region shall notify other regions affected by the impending proving tests and any resulting scheduled operations proposed by the operator/program manager
- Assigning appropriate sections of the test plan to maintenance, avionics, and operations inspectors for their review and comment
- Coordinating with the office of aviation security, as necessary, to obtain security inspector assistance for evaluating specific areas such as hazardous materials and passenger screening

NOTE: Figure 76-1 provides guidance to the team leader in the planning and coordination stage.

E. Personnel Participation. Regulations limit the participants in the in-flight portion of the proving tests to those required by the operator to conduct the tests and those designated by the Administrator. The number of persons on board in excess of the crew and the FAA proving test team must be kept to a minimum. Personnel in this category will be limited to the following:

- Operator/program manager/applicant's supervisory personnel
- Designated FAA representatives from regional and/or Washington headquarters
- Representatives of the aircraft/ engine/accessories manufacturer(s)

F. Provisional Airworthiness Certificates. In rare situations, an operator/applicant may propose to use a provisionally-certificated aircraft during proving tests under part 121.

(1) The issuance of a Provisional Airworthiness Certificate, per part 21, subpart I is the responsibility of the Manufacturing Inspection District Office.

(2) To obtain FAA approval, the operator must show that no feature, characteristic, or condition of the aircraft would make it unsafe when operated in

accordance with part 91, § 91.317 and part 121, § 121.207.

NOTE: Parts 135 and 91, subpart K do not permit the use of provisionally-certificated aircraft for proving tests.

5. VALIDATION TESTS. Validation tests provide the operator/program manager with an opportunity to demonstrate to the Administrator that specific line operations, such as two-engine, extended-range, long-range navigation, and Category II and III operations, can be conducted safety. Validation tests, like proving tests, are operator-oriented but are usually more limited in scope. Validation tests and proving tests may be conducted jointly.

6. PROVING AND VALIDATION TEST PROCESS.

A. Phase I. During Phase I, the team leader must ensure that the operator/program manager/applicant is aware of the specific proving or validation test requirements and the requirements for submitting the plan to the Administrator.

(1) Phase I of the proving test process begins when one of the following occurs:

- An applicant for a certificate or the program manager establishes the Schedule of Events
- An operator/program manager advises the CHDO of an intent to acquire a new aircraft type

(2) For validation tests, this phase begins when one of the following occurs:

- An operator/program manager proposes to operate over routes requiring a special navigation authorization
- An operator/program manager acquires new equipment that requires special performance or operational authorization

B. Phase II. Phase II begins when the operator/program manager/applicant submits the test plan to the FAA for evaluation. During this phase, the team leader must ensure the plan, as submitted, is complete and the format is acceptable for a thorough review and analysis to be conducted.

C. Phase III. Phase III consists of the inspectors thoroughly reviewing the submitted plan.

(1) The review should ensure compliance with regulatory requirements and the logical sequencing of events.

(2) During this phase, close coordination must be maintained between the Administrator and the operator/program manager/applicant. The operator/program manager/applicant should be advised by letter of the results of the review. This review should take place within 5 days of the plan's submittal.

D. Phase IV. Phase IV is the demonstration phase.

(1) For proving tests, the operator/program manager/applicant conducts both en route and non-en route segments of the test for FAA observation.

(2) For validation tests, the operator conducts specific operations to accomplish one of the following:

- Collect verification data
- Provide a flight/operation for FAA observation

E. Phase V. After successfully completing a proving/validation test, the CHDO approves the OpSpecs/MSpecs and completes the appropriate test report.

7. PROVING TEST REQUIREMENTS.

A. Types of Flights Permitted. For proving tests to be acceptable, the operator/program manager/applicant must demonstrate the ability to operate according to the operating and maintenance regulatory requirements that would apply if the operator/program manager were fully certificated or already held OpSpecs/MSpecs and held the necessary authorizations. Only the following types of flights can be credited toward proving tests:

(1) Representative en route flights conducted under the provisions of part 91, 121 or 135, and other applicable rules with FAA inspectors on board; and

(2) Training flights observed by an FAA Operations ASI, if the aircraft is maintained according to the proposed maintenance/inspection programs.

B. Time Requirements for Part 121. The minimum time requirements for proving tests under part 121 are as follows:

(1) Newly-Manufactured Aircraft. Section 121.163(a) requires a minimum 100 hours of proving tests to include 10 hours of night flight, in addition to the aircraft certification tests. This applies to new aircraft manufactured in the United States or any foreign-manufactured aircraft not previously operated by a U.S.-certificated operator.

(2) Proving Tests for Kinds of Operations. Section 121.163(b) requires at least 50 hours of proving tests by a certificate holder for each kind of operation it intends to conduct.

(3) Proving Tests for Materially-Altered Aircraft. Section 121.163 (c) requires a certificate holder to conduct at least 50 hours of proving tests for each kind of operation it intends to conduct in a materially-altered airplane. Examples of materially altering an aircraft design include the following:

- Installation of engines that differ in type from those originally installed on the aircraft for type certification
- Any design alterations that significantly affect flight characteristics, e.g., wing or fuselage extensions

C. Time Requirements for Part 91, Subpart K and Part 135. Proving tests under part 91, subpart K and part 135 are required only when those operations are conducted with aircraft requiring two pilots by type certificate for operations under VFR, or when those operations are conducted with a turbojet-powered airplane if it has not previously proved the same or another turbojet-powered airplane.

(1) At least 25 hours of proving tests must be flown when an operator/program manager has not previously operated an aircraft for which two pilots are required by type certificate for VFR operations, or when those operations are conducted with a turbojet-powered airplane if it has not previously proved the same or another turbojet-powered airplane.

(2) At least 25 hours of proving tests must be flown when an aircraft used by the operator/program manager has been significantly altered in design. Significant alterations in the design of an aircraft include the following:

- Installation of engines that differ in type from those originally installed on the aircraft for type certification
- Any design alteration that significantly affects flight characteristics, e.g., short takeoff and landing modifications

D. Airport Operations. An operator/program manager must conduct a representative number of proving tests into airports that the operator/program manager plans to serve in approved OpSpecs scheduled/unscheduled or approved MSpecs operations. If an operator/program manager plans to provide service to airports in more than one area (domestic and overseas), the operator/program manager must conduct proving tests into a representative number of those areas. The Administrator will determine what constitutes a representative airport or area of en route operation.

E. Carriage of Passengers/Cargo. The carriage of revenue passengers on a proving test is strictly prohibited. The carriage of mail, express, or other revenue cargo is permitted when the operator/applicant has the appropriate Department of Transportation (DOT) economic authority.

F. Deviations. The only deviations authorized by regulations are to the required number of proving test flight hours.

G. Predemonstration Meetings.

(1) The proving team shall conduct predemonstration test meetings to accomplish the following:

(a) Provide members with assignments, schedules for flight times and locations, and inspection and reporting requirements.

(b) Determine the means of testing the operator/program manager/applicant's ability to deal with simulated and/or actual operational contingencies within the limits of the proposed program. Scenarios must be clearly understood by and coordinated with each member of the team in terms of individual roles

and responsibilities. The proving test team leader must ensure:

- That the operator/program manager is not encumbered with so many simulated situations that a realistic evaluation of the proposed operation is hindered
- That emergency or other simulated situations, when appropriate, are well-coordinated with other agencies such as Air Traffic Control or airport authorities, as required

NOTE: All simulated scenarios must be terminated immediately if an actual emergency occurs.

(2) The following are examples of typical scenarios that may be used in evaluating the operator/program manager's capabilities:

(a) Diversion to alternative airports for reasons such as weather or maintenance. This would test the company's communications, maintenance, and other operational capabilities.

(b) Minimum Equipment List (MEL) or Configuration Deviation List (CDL) situations that test the operator/program manager/applicant's operations and maintenance procedures, e.g., a simulated inoperative generator.

(c) Problems that will demonstrate the operator/program manager/applicant's competency and knowledge of areas such as aircraft performance, airport analysis programs, and alternative company procedures, e.g., simulating an inoperative anti-skid or thrust reverser while operating on runways contaminated with ice, slush, or snow.

(d) Maintenance problems that will demonstrate:

- The availability of spare parts , special tools and equipment, and sufficient competent, trained personnel, if applicable
- The effectiveness of maintenance procedures
- The availability of contracted support agencies, if required, e.g., fueling, deicing, and non-routine maintenance

(e) Problems that will cause the operator/program manager/applicant to use alternative weight and balance procedures, if the normal system is a computer-based system.

(f) Problems that will demonstrate the operator/program manager/applicant's ability to function according to established company procedures and FAA regulations for security and hazardous cargo situations.

(g) Operational situations that exercise dispatch, flight following, or flight locating centers to test communications, weather information dissemination, and other flight information distribution abilities.

(h) Simulated aircraft emergencies, such as engine failure or landing gear retraction/extension problems.

NOTE: Under no circumstances shall an inspector require an actual engine shutdown.

(i) Specific simulated emergencies, if applicable:

- Incapacitated passengers in need of immediate medical assistance
- Lavatory or cargo fires
- Loss of pressurization
- Unruly passenger who interferes with a crewmember

8. VALIDATION TEST REQUIREMENTS.

A. Validation tests shall be conducted for the following reasons:

- When directed by the director of the Flight Standards Division, AFS-1, or the PI
- When § 91.1041 or part 121 (subparts E and F) and § 135.145 require an operator/program manager to demonstrate that it can

satisfactorily conduct the operations for which it is seeking FAA authorization

B. After the operator/program manager has successfully demonstrated the ability to meet all requirements, the FAA approves the specific authorizations. Parts 121 and 135 require these specific authorizations to be included in the OpSpecs. Part 91, subpart K requires these specific authorizations to be included in the MSpecs.

(1) The requirements for validation tests are derived from different regulations than the requirements for proving tests. However, validation tests are often conducted in conjunction with proving tests.

(2) The validation tests must be specifically designed and tailored to the individual situation(s) of the operator/program manager.

C. Validation tests may consist of a single flight operation or a series of flight operations. As regulations do not specify a required number of hours or flights, this is determined by the Administrator. Depending on the type of validation test, it may be necessary for an inspector to observe each flight or require the operator/program manager to keep records of a series of flight operations for FAA evaluation.

D. In certain situations, the FAA may grant an interim authorization, such as an authorization to conduct Category II operations with higher minimums. This interim authorization allows:

- FAA observation and evaluation of the proposed line operation
- Data collection by the operator for FAA evaluation

E. Successful completion of all validation tests is required before a final authorization is granted.

F. Operational situations that require a special navigation authorization and normally require validation tests include the following:

(1) A situation in which an operator/program manager proposes to operate a specific aircraft for the first time into an area requiring the use of special navigation equipment and/or procedures. These situations can include the following:

- Operations in remote and extensive land areas with questionable or degraded surface or space-based navigation facilities
- Operations over extended over-water areas that do not have adequate surface or space-based navigation facilities
- Operations in extensive areas of magnetic unreliability
- Operations in North Atlantic Minimum Navigation Performance Specifications (NAT/MNPS) airspace (see the current editions of Advisory Circulars (AC) 91-49, General Aviation Procedures for Flight in North Atlantic Minimum Navigation Performance Specifications Airspace, and AC 120-33, Operational Approval of Airborne Long-Range Navigation Systems for Flight Within the North Atlantic Minimum Navigation Performance Specifications Airspace, and the Minimum Navigation Performance Specifications Operations manual)
- Operations in North Pacific (NOPAC) airspace (see North Pacific (NOPAC) Operations Manual)
- Operations in Arctic Ocean and Antarctica airspace
- Low-level aircraft off-shore operations that do not have adequate surface or space-based navigation facilities

(2) An operator/program manager who proposes to use the following special navigation equipment in a specific aircraft when that operator has not previously used the equipment in that aircraft:

- Area navigation systems certified according to the current edition of AC 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System
- Loran-C navigation systems (see the current edition of AC 20-121,

Airworthiness Approval of Loran-C Navigation Systems for Use in the U.S. National Airspace System (NAS) and Alaska)

- OMEGA/VLF navigation systems (see the current edition of AC 20-101, Airworthiness Approval of Omega/VLF Navigation Systems for Use in the U.S. National Airspace System (NAS) and Alaska)
- Inertial navigation systems (see the current edition of AC 25-4, Inertial Navigation Systems (INS), and AC 121-13, Self-Contained Navigation Systems (Long Range))
- Doppler navigation systems
- Global positioning satellite navigational systems
- Any combination of the preceding systems

G. The following situations require validation tests, and many require additional maintenance tasks, procedures and limitations (MEL and maintenance) for each type of aircraft to be used by an operator/program manager:

- Extended-range operations with a two-engine airplane under part 121 over routes containing a point further than 1-hour flying time from an adequate airport (see the current editions of AC 120-42, Extended Range Operation with Two-Engine Airplanes (ETOPS), and Order 8300.10, Volume 2, Chapter 82, Evaluate/Inspect Part 121 Extended-Range Operations with Two-Engine Aircraft)
- Unimproved runway operations

H. The following situations require special equipment and special operational authorization and may require additional maintenance tasks or inspections:

- Category II and III instrument approach and landing systems (see the current editions of AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, and AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout)
- Use of automatic landing systems for landing operations (see the current edition of AC 20-57, Automatic Landing Systems (ALS))
- Use of manually flown flight control guidance systems approved for landing operations (heads-up or heads-down flight control systems)
- Use of airborne radar approach systems (ARA) (see the current edition of AC 90-80, Approval of Offshore Standard Approach Procedures, Airborne Radar Approaches, and Helicopter En Route Descent Areas)
- Use of area navigation systems for approach and landing operations (see AC 90-45)

SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of the regulatory requirements of part 91, 121, or 135, as applicable
- Successful completion of the Airworthiness Inspector Indoctrination course(s) or equivalent, and the Inspector Cockpit En Route Inspection course
- Have experience with parts 91, 121, and/or 135 operations
- Be familiar with the operator/program manager/applicant's maintenance program
- Have experience or training on the type of equipment being used

B. Coordination. This task requires close coordination among Avionics, Maintenance, and Operations ASIs and with the regional office.

2. REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- 14 CFR parts 43, 91, 121, and 135
- Order 8130.2, Airworthiness Certification of Aircraft and Related Products
- Order 8300.10, Vol 2, Ch 82
- Order 8300.10, Volume 2, Chapter 84, Part 121/125/135 Operations Specifications
- 8300.10, Vol. 2, Ch. 86, Part 91 Subpart K, Management Specifications
- 8300.10, Vol. 2, Ch. 227, Evaluate Applicant's Refueling Procedures and Facilities
- 8300.19, Vol. 3, Ch. 2, Conduct Spot Inspection of Operator's/Fractional Ownership Program Manager's Aircraft
- AC 20-57
- AC 20-101
- AC 20-121
- AC 25-4
- AC 90-45
- AC 90-79, Recommended Practices and Procedures for the Use of Electronic Long-Range Navigation Equipment
- AC 90-80
- AC 91-16, Category II Operations—General Aviation Airplanes
- AC 91-49
- AC 120-28
- AC 120-29
- AC 120-31, Operational and Airworthiness Approval of Airborne Omega Radio Navigation Systems as a Means of Updating Self-Contained Navigation Systems
- AC 120-33
- AC 120-37, Operational and Airworthiness Approval of Airborne Omega Radio Navigation Systems as a Sole Means of Overwater Long Range Navigation
- AC 120-42
- AC 121-13
- North Atlantic Minimum Navigation Performance Specifications Airspace Operations Manual
- North Pacific (NOPAC) Operations Manual
- Operator's maintenance program
- Operator's submitted test plan

B. Forms. None.

C. Job Aids:

- Figure 76-1, Proving/Validation Test Job Aid
- JTA: 3.3.14

3. PROVING TEST PROCEDURES.

A. Review the Operator/Program Manager/Applicant's Submitted Test Plan.

(1) The plan must contain at least the following information:

- The operator/program manager/ applicant's point of contact
- A detailed Schedule of Events including the dates, times, and airports to be used
- The names and positions of all the operator/program manager/applicant's participants for the proposed test schedule
- The names and affiliations of personnel, other than the operator/program manager/applicant's employees, whom the operator/program manager/applicant wants to participate in the test
- Other information that the Administrator may require

(2) After a complete review by all team members, the team leader will notify the operator/program manager/applicant of acceptance or required revisions.

B. Conduct FAA Team Meetings. The team leader will provide all participants with the following:

- Individual assignments and responsibilities
- A detailed Schedule of Events

(1) As a team, formulate and schedule a plan that will test the operator/program manager/applicant's capabilities and reactions.

(2) Ensure that the plan includes an inspection of the following:

- The operator/program manager/ applicant's aircraft (see vol. 3, ch. 2)
- Servicing facilities—fueling and deicing (see vol. 2, ch. 227)

(3) Ensure that the plan includes surveillance of the operator/program manager/applicant's routine and non-routine maintenance procedures/performances, to confirm the following:

- The availability of parts, special tools, and adequately trained personnel
- The availability and effective utilization of company manuals (operations, maintenance, MEL/CDL)
- The effectiveness of maintenance procedures

(4) Ensure that the plan includes the use of simulated problems, such as:

- Weather diversions
- Equipment failures/malfunctions
- In-flight/ground emergencies

C. Conduct Meeting with Operator/Program Manager/Applicant. Introduce team members and discuss the procedures to be followed during the test.

D. Conduct Proving Test. Accomplish the proving test flight per the formulated plan (see Figure 76-1). Advise the operator/program manager/applicant of any discrepancies on the day that they occur. When a serious deficiency occurs that may be cause for rescheduling or terminating the proposed flights, advise the operator/program manager/applicant immediately.

NOTE: All simulated scenarios must be terminated immediately if an actual emergency occurs.

E. Analyze Findings. As a team, compare and evaluate individual and group findings to determine if discrepancies and/or deficiencies exist.

F. Conduct Debriefing. Conduct a meeting with the operator/program manager/applicant to discuss findings and necessary corrective actions. Notify the operator/program manager/applicant by letter of all deficiencies discussed.

4. TASK OUTCOMES FOR PROVING TESTS.

A. Complete PTRS.

B. Approve OpSpecs Amendment. When all deficiencies are resolved, approve/amend the operator's OpSpec. (See vol. 2, ch. 84.)

C. Approve MSpecs Amendment. When all deficiencies are resolved, approve/amend the program manager's MSpecs. (See vol. 2, ch. 86.)

D. Complete the Report.

(1) The inspection team must complete a report that explains how the operator/program manager/applicant demonstrated compliance with the applicable subparts of the regulations. The report must include:

- Records of all discussions and agreements made with the operator/program manager/applicant concerning actions taken to correct deficiencies
- The basis for FAA determinations of satisfactory corrective action

(2) The CHDO will forward one copy of the report within 30 days (through channels according to regional instruction) to the appropriate division.

5. FUTURE ACTIVITIES FOR PROVING TESTS. None.

6. VALIDATION TEST PROCEDURES.

A. Review the Operator/Program Manager's Submitted Test Plan.

(1) The plan must contain at least the following information:

- The operator's point of contact
- A general Schedule of Events that may include flights, airports to be used, and dates
- Other information the Administrator may require

(2) After a complete review, the operator/program manager will be notified of acceptance or required revisions.

B. Conduct FAA Team Meetings (as required). The team leader will provide all participants with the following:

- Individual assignments and responsibilities
- A detailed Schedule of Events

(1) Formulate and schedule a plan that will test the operator's capabilities and reactions.

(2) Ensure that the plan includes an inspection of the following:

- The operator/program manager's aircraft (see vol. 3, ch. 2)
- Servicing facilities—fueling and deicing, if applicable (see vol. 2, ch. 227)

(3) Ensure that the plan includes surveillance of the operator/program manager's routine and non-routine maintenance procedures and performances, to ensure:

- Availability of parts , special tools, and adequately trained personnel
- Availability and effective utilization of company manuals (operations, maintenance, MEL/CDL)
- Effectiveness of maintenance procedures

(4) Ensure that the plan includes the use of simulated problems, if applicable, such as:

- Weather diversions
- Equipment failures/malfunctions
- In-flight/ground emergencies

NOTE: All simulated scenarios must be immediately terminated if an actual emergency occurs.

C. Conduct Meeting with Operator/Program Manager. Introduce team member(s) and discuss the procedures to be followed during the test.

D. Conduct Validation Flight(s). Accomplish validation test flight(s) per the formulated plan. Advise the operator as soon as possible of serious deficiencies that may be cause for rescheduling or terminating the proposed flights. FAA participation during these flights may not be required.

E. Analyze Findings. Evaluate the findings to determine if discrepancies or deficiencies exist.

F. Conduct Debriefing. Conduct a meeting with the operator/program manager to discuss findings and necessary corrective actions. The operator/program manager will be notified by letter of all deficiencies discussed.

7. TASK OUTCOMES FOR VALIDATION TESTS.

A. Complete PTRS.

B. Approve OpSpecs. When all deficiencies are resolved, approve/amend the operator's OpSpecs. (See vol. 2, ch. 84.)

C. Approve MSpecs. When all deficiencies are resolved, approve/amend the operator's MSpecs. (See vol. 2, ch. 86.)

D. Complete the Report.

(1) The inspector must complete a report that includes:

- An explanation of how the operator/ program manager demonstrated compliance with the corresponding subparts of the regulations
- Records of all discussions and agreements with the operator/program manager concerning actions taken to correct deficiencies
- The basis for FAA determinations of satisfactory corrective action

(2) The CHDO will forward one copy of the report within 30 days (through channels according to regional instructions) to the appropriate division.

8. FUTURE ACTIVITIES FOR VALIDATION TESTS. None.

FIGURE 76-1. PROVING/VALIDATION TEST JOB AID

NOTE: Figure 76-1 should be used as an aid in gathering information prior to the test flight. Check the applicable spaces and fill in any required information.

I. OPERATOR/PROGRAM MANAGER/APPLICANT INFORMATION.

A. 14 CFR Part 121 Operator. ____

1. New applicant. ____
2. Existing operator. ____

B. 14 CFR Part 135 Operator. ____

1. New applicant. ____
2. Existing operator. ____

C. 14 CFR Part 91, Subpart K, Fractional Program Manager. ____

1. New applicant. ____
2. Existing manager. ____

D. Type of Airworthiness Certificate.

1. Standard. ____
2. Provisional. ____

II. OPERATOR/PROGRAM MANAGER/APPLICANT'S FLIGHT PLAN INFORMATION.

A. Company Coordinator (name). _____

B. Proving Test Schedule (attach itinerary).

1. Validation test included. ____
2. Non-en route segment (50 percent maximum).
   - Ferry flight hours to be credited ____
   - Training flight hours to be credited ____
3. En route segment (as least 50 percent of total hours).
   - Flight hours to be credited ____
   - Representative airports (attach list)
   - Representative areas of operation (attach list)

FIGURE 76-1. (Continued)

C. Regulatory Hours Required (check one of the four).

1. Part 121 aircraft not previously proved. ____

2. Part 121 aircraft previously proved. ____

3. Part 135/91K aircraft. ____

4. 10 hours of night flight. ____

D. Requested Deviations.

1. Total proposed reduced hours. ____

2. Total approved reduced hours. ____

3. Total non-en route hours. ____

4. Total en route hours. ____

5. Total night hours. ____

E. Involved Personnel.

1. Names and positions of flight crewmembers (attach list).

2. Names and titles of company nonflight crewmembers (attach list).

3. Names and positions of other operator/applicant and participants (attach list).

4. Names, titles, and affiliation of noncompany participants, such as engine and aircraft representatives (attach list).